

ABSTRAK

Udang vaname (*Litopenaeus vannamei*) merupakan salah satu komoditas utama budidaya yang bernilai ekonomis tinggi. Penelitian ini bertujuan untuk mengetahui perbedaan total bakteri pada air pendederan udang vaname dengan penambahan probiotik dan fitobiotik melalui pakan. Penelitian ini dilakukan pada bulan September sampai Oktober 2023 di Desa Aketobololo, Tidore Kepulauan. Penelitian ini menggunakan empat kolam dengan perlakuan berbeda, perlakuan yang dengan pemberian probiotik dan fitobiotik melalui pakan yaitu : kolam A (probiotik dan fitobiotik), kolam B (probiotik), kolam C (fitobiotik) dan kolam D (kontrol). Pemberian dosis probiotik melalui pakan adalah 15 mL/Kg dan fitobiotik 12,5 g/Kg. Parameter yang diamati adalah Total Bacterial Count (TBC), Total Vibrio Count (TVC), total vibrio koloni hijau, total vibrio koloni kuning, kualitas air (suhu, salinitas, DO, pH). Hasil penelitian ini menunjukkan bahwa TBC paling tinggi terdapat di kolam A yaitu sebanyak 12,16 log 10 CFU/mL dan terendah di kolam D yaitu 11,97 log 10 CFU/mL. Sedangkan TVC tertinggi terjadi di kolam A sebanyak 5,16 log 10 CFU/mL dibandingkan kolam C yaitu 4,48 log 10 CFU/mL. Pada media TCBS terdapat dua warna koloni berbeda yaitu bakteri vibrio koloni hijau dan koloni kuning. Total bakteri vibrio hijau tertinggi berada di kolam C dan D yaitu 3,30 log 10 CFU/mL dibandingkan kolam A yaitu (0,00) atau tidak ada. Sedangkan total bakteri koloni hijau palig tinggi kolam A yaitu 5,16 log 10 CFU.mL dan terendah di kolam C yaitu 4,44 log 10 CFU/mL. Pemberian probiotik dan fitobiotik melalui pakan tidak memberikan pengaruh terhadap kualitas air, selama penelitian dimana suhu berkisar 29,7°C-33,3°C, salinitas (35-36 ppt), oksigen terlarut (6,5-8,4 ppm), pH sebesar 7,1-7,8 kisaran kualitas air selama penelitian masih optimal mendukung pertumbuhan udang.

Kata Kunci: Bakteri, Bioflok, Fitobiotik, Probiotik

ABSTRACT

Whiteleg shrimp (*Litopenaeus vannamei*) is one of the main commodities of cultivation with high economic value. This study aims to determine the difference in total bacteria in whiteleg shrimp nursery water with the addition of probiotics and phytobiotics through feed. This study was conducted from September to October 2023 in Aketobololo Village, Tidore Islands. This study used four ponds with different treatments, treatments with the provision of probiotics and phytobiotics through feed, namely: pond A (probiotics and phytobiotics), pond B (probiotics), pond C (phytobiotics) and pond D (cock). The dose of probiotics given through feed was 15 mL/Kg and phytobiotics 12.5 g/Kg. The parameters observed were Total Bacterial Count (TBC), Total Vibrio Count (TVC), total green colony vibrio, total yellow colony vibrio, water quality (temperature, salinity, DO, pH). The results of this study indicate that the highest TB was found in pool A, which was 12.16 log 10 CFU/mL and the lowest in pool D, which was 11.97 log 10 CFU/mL. While the highest TVC occurred in pool A, which was 5.16 log 10 CFU/mL compared to pool C, which was 4.48 log 10 CFU/mL. In TCBS media, there were two different colony colors, namely green colony vibrio bacteria and yellow colonies. The highest total green vibrio bacteria were in pools C and D, which were 3.30 log 10 CFU/mL compared to pool A, which was (0.00) or none. While the highest total green colony bacteria were in pool A, which was 5.16 log 10 CFU.mL and the lowest in pool C, which was 4.44 log 10 CFU/mL. The administration of probiotics and phytobiotics through feed did not affect water quality, during the study where the temperature ranged from 29.7°C-33.3°C, salinity (35-36 ppt), dissolved oxygen (6.5-8.4 ppm), pH of 7.1-7.8 the range of water quality during the study was still optimal in supporting shrimp growth.

Key words : Bacteria, Biofloc, Phytobiotics, Probiotics